## WHAT IS CLAIMED:

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## 1. A compound represented by the structural formula I

$$R^{1} \xrightarrow{N} \xrightarrow{R^{9}} R^{10}$$

$$R^{10} \xrightarrow{A} \xrightarrow{B} R^{3}$$

$$O$$

or a pharmaceutically acceptable salt or solvate thereof; wherein:  $\ensuremath{\mathsf{R}}^1$  is

$$\mathbb{R}^{6}$$
 $\mathbb{R}^{5}$ 
 $\mathbb{R}^{5}$ 
 $\mathbb{R}^{6}$ 
 $\mathbb{R}^{6}$ 
 $\mathbb{R}^{6}$ 

$$R^5-Q$$
  $\left\{ -M-R^4 \right\}$ 

R<sup>2</sup> is selected from the group consisting of H, alkyl, aryl, arylalkyl, heteroarylalkyl, alkylketone, arylketone, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, alkylsulfonyl, arylsulfonyl, alkoxyalkyl, or amide;

R<sup>3</sup> is selected from the group consisting of aryl, 6-membered heteroaryl, fluorenyl; and diphenylmethyl, 6 membered heteroaryl-N-oxide,

$$\begin{array}{c|c} R^{16} & R^{15} & R^{16} \\ -C & -C \\ R^{17} & \text{and} & R^{16} \\ -C - \text{heteroaryl} \\ R^{17} & \text{, wherein said aryl, fluorenyl,} \end{array}$$

diphenyl or heteroaryl is optionally substituted with 1-4 substituents which

can be the same or different and are independently selected from the group consisting of R<sup>11</sup>, R<sup>12</sup>, R<sup>13</sup>, R<sup>14</sup> and R<sup>15</sup>;

 $\mathsf{R}^4$  is 1-3 substituents selected from the group consisting of H, halo, alkyl, haloalkyl, alkoxy, cycloalkyl, cycloheteroalkyl, amide, CF<sub>3</sub>, OCF<sub>3</sub>, aryl, heteroaryl, -XR<sup>7</sup>, -C(O)C<sub>3</sub>-C<sub>8</sub>cycloalkyl, -C(O)C<sub>3</sub>-C<sub>8</sub>cycloheteroalkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-N(R<sup>21</sup>)SO<sub>2</sub>R<sup>22</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-C(O)NR<sup>20</sup>R<sup>21</sup>, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sup>22</sup>, R<sup>8</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl-, R<sup>8</sup>-heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl-, -C(O)-(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>8</sup>-aryl-C(O)-, -C(O)NR<sup>21</sup>R<sup>22</sup>, -C(O)NH<sub>2</sub>, -C(O)N(H)OH, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-N(R<sup>21</sup>)CO<sub>2</sub>R<sup>22</sup>,

-(C<sub>1</sub>-C<sub>6</sub>)alkyl-N(R<sup>21</sup>)C(O)NR<sup>21</sup>R<sup>22</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>21</sup>R<sup>22</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NH<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>)alkylSO<sub>2</sub>NR<sup>21</sup>R<sup>22</sup> and -SO<sub>2</sub>NR<sup>21</sup>R<sup>22</sup>, wherein R<sup>4</sup> can be the same or different and is independently selected when there is more than one R<sup>4</sup> present;

 $R^5$  is selected from the group consisting of H, arylalkyl,  $(C_1-C_6)$ alkyl,  $R^8$ -aryl( $C_1-C_6$ )alkyl-,  $R^8$ -heteroaryl( $C_1-C_6$ )alkyl-,  $-SO_2$ -( $C_1-C_6$ )alkyl,  $-SO_2$ -( $C_3-C_6$ )cycloalkyl,  $-SO_2$ -aryl,  $R^8$ -aryl- $SO_2$ -, -C(O)-( $C_1$ - $C_6$ )alkyl, -C(O)-( $C_4$ - $C_6$ )cycloalkyl,  $R^8$ -aryl- $R^8$ - $R^8$ -aryl- $R^8$ - $R^8$ -aryl- $R^8$ -aryl- $R^8$ - $R^8$ -aryl- $R^8$ - $R^8$ -aryl- $R^8$ - $R^8$ -aryl- $R^8$ - $R^8$ -

 $R^6$  is H, -(C<sub>1</sub>-C<sub>6</sub>)alkyl, or -(C<sub>1</sub>-C<sub>6</sub>)haloalkyl;

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R<sup>7</sup> is selected from the group consisting of aryl, substituted aryl, heteroaryl, alkyl, haloalkyl and cycloalkyl;

 $R^8$  is 1, 2 or 3 substituents selected from the group consisting of H, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, -CF<sub>3</sub>, -OCF<sub>3</sub>, CH<sub>3</sub>C(O)-, -CN, CH<sub>3</sub>SO<sub>2</sub>-, CF<sub>3</sub>SO<sub>2</sub>- and -NH<sub>2</sub>, wherein  $R^8$  can be the same or different and is independently selected when there are more than one  $R^8$  present;

 $R^9$ ,  $R^{10}$  and B can be the same or different and are each independently selected from the group consisting of hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, and -(C<sub>1</sub>-C<sub>6</sub>)haloalkyl;

 $R^{11}$  and  $R^{12}$  can be the same or different and are each independently selected from the group consisting of  $(C_1-C_6)$ alkyl,  $-(C_1-C_6)$ haloalkyl, halogen,  $-NR^{19}R^{20}$ , -OH,  $CF_3$ ,  $-OCH_3$ , -O-acyl, and  $-OCF_3$ ;

 $R^{13}$  is selected from the group consisting of hydrogen,  $R^{11}$ , H, phenyl, -NO<sub>2</sub>, -CN, -CH<sub>2</sub>F, -CHF<sub>2</sub>, -CHO, -CH=NOR<sub>19</sub>, pyridyl-N-oxide, pyrimidinyl, pyrazinyl, N(R<sub>20</sub>)CONR<sub>20</sub>R<sub>21</sub>, -NHCONH(chloro-(C<sub>1</sub>-C<sub>6</sub>)alkyl), -

 $\label{eq:NHCONH} NHCONH((C_3-C_{10})-cycloalkyl(C_1-C_6)alkyl), -NHCO(C_1-C_6)alkyl, -NHCOCF_3, -NHCOCF_3, -NHSO_2N((C_1-C_6)alkyl)_2, -NHSO_2(C_1-C_6)alkyl, -N(SO_2CF_3)_2, -NHCO_2(C_1-C_6)alkyl, (C_3-C_{10})cycloalkyl, -SR^{22}, -SOR^{22}, -SO_2R^{22}, -SO_2R^{22}, -SO_2NH(C_1-C_6)alkyl, -OSO_2(C_1-C_6)alkyl, -OSO_2CF_3, hydroxy(C_1-C_6)alkyl, -CONR^{19}R^{20}, -CON(CH_2CH_2-O-CH_3)_2, -OCONH(C_1-C_6)alkyl, -CO_2R_{19}, -Si(CH_3)_3 \ and -B(OC(CH_3)_2)_2;$ 

 $R^{14}$  is selected from the group consisting of (C<sub>1</sub>-C<sub>6</sub>)alkyl, -(C<sub>1</sub>-C<sub>6</sub>)haloalkyl -NH<sub>2</sub> and  $R^{15}$ -phenyl;

 $R^{15}$  is 1-3 substituents selected from the group consisting of hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, -(C<sub>1</sub>-C<sub>6</sub>)haloalkyl, -CF<sub>3</sub>, -CO<sub>2</sub>R<sup>20</sup>, -CN, (C<sub>1</sub>-C<sub>6</sub>)alkoxy and halogen; wherein R<sup>15</sup> can be the same or different and is independently selected when there are more than one R<sup>15</sup> present;

 $\mathsf{R}^{16}$  and  $\mathsf{R}^{17}$  can each be the same or different and are each independently selected from the group consisting of hydrogen and (C<sub>1</sub>-C<sub>6</sub>)alkyl, or

R<sup>16</sup> and R<sup>17</sup> together are a C<sub>2</sub>-C<sub>5</sub> alkylene group and with the carbon to which they are attached from a spiro ring of 3 to 6 carbon atoms;

 $R^{19}$ ,  $R^{20}$  and  $R^{21}$  can each be the same or different and are each independently selected from the group consisting of H,  $(C_1-C_6)$ alkyl and  $(C_3-C_6)$ cycloalkyl;

 $R^{22}$  is selected from the group consisting of  $(C_1-C_6)$ alkyl, - $(C_1-C_6)$ haloalkyl,  $(C_2-C_6)$ hydroxyalkyl,  $(C_2-C_6)$ alkylene,  $(C_3-C_6)$ cycloalkyl, aryl and aryl $(C_1-C_6)$ alkyl-;

A is selected from the group consisting of H,  $(C_1-C_6)$ alkyl, and  $(C_2-C_6)$  alkenyl.

M is aryl or heteroaryl optionally substituted with R<sup>4</sup>;

Q is CH or N; and

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X is selected from the group consisting of CH<sub>2</sub>, SO<sub>2</sub>, SO, S, and O, with the following proviso:

when  $R^1$  is phenyl, pyridyl, thiophenyl or naphthyl,  $R^2$  cannot be H, -  $(C_1-C_6)$ alkyl or  $-C(O)-(C_1-C_6)$ alkyl.

2. A compound having the structural formula I according to claim 1 wherein R<sup>9</sup>, R<sup>10</sup> and B are H, A is CH<sub>3</sub>, and R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are as defined in the following table:

#	R <sup>1</sup>	R <sup>2</sup>	$\mathbb{R}^3$
1	CI		N N
2	CH <sub>3</sub> N V		N N
3	CI		N N
4	N Y		ZZ
5	CI O S O		Z Z
6	CI CI		Z Z
7	O N N Zi		N N
8	Br		N
9	Ŭ <sup>¹</sup> i		N N
10	CF <sub>3</sub>		N N N

11	CF <sub>3</sub> O		N N
12	CI		Z Z
13	CF <sub>3</sub> N		N N
14	F		N N
15	CF <sub>3</sub> O		, , , O, , , , O, , , , , , , , , , , ,
16	CF <sub>3</sub> N		N+.0°
17	Br		N N N
18	√, G		N N
19	Br	F	N N
20	CF <sub>3</sub>		N N
21	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		N N

	<del></del>	 
22		N N
23	, Control of the cont	N N
24	OCF <sub>3</sub>	N N
25	F F	N N
26	CI	N N
27	F CI	N N N
28	Br CH <sub>3</sub>	N N N
29	MeO CI	N N
30	Br CH <sub>3</sub>	N N
31	F Ti	N N
32	CI	N N

33	ኒ.	
	OMe	N N
34	F <sub>3</sub> C \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	N N
35	CI CF <sub>3</sub>	N N
36	F Y	N N N
37	MeO	N N
38	Br CF <sub>3</sub>	N N
39	CH <sub>3</sub>	N N
40	EtO	N N
41	Et	N N
42	F	N N
43	PhO	N N N
44	CN	N N

	<del>.</del>	 
45		N N
46	N-N N-N Bn	N N
47	MeSO <sub>2</sub> ·NH	N N N N N N N N N N N N N N N N N N N
48	MeSO <sub>2</sub> ·N	N N
49	Ac. N	N N
50	MeSO <sub>2</sub>	N N
51	CI	N N
52	Br	N N
53	Z Z	N N
54	O N N N N N N N N N N N N N N N N N N N	N N
55	H <sub>2</sub> N	N N

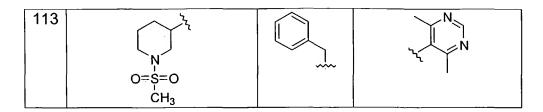
56	O NH	N N
57	CF <sub>3</sub> CH <sub>2</sub> SNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	N N
58	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	N N
59	HO <sub>2</sub> C	Z Z
60	HO <sub>2</sub> C	N N
61	H <sub>2</sub> N Ti	N N
62	O N	N N N
63	N Zi	N N N N N N N N N N N N N N N N N N N
64	HO N Y	N
65	O NH	N N
66	O N H	N N
67	HO N H	N N N

		_	
68	A P C C C C C C C C C C C C C C C C C C		N N
69	CF <sub>3</sub> N		N N
70	F <sub>3</sub> CO		N N
71	Br N		N N
72			N N
73	CI		N N
74			N N
75		(CH <sub>2</sub> ) <sub>2</sub>	N N
76	F <sub>3</sub> C N		N N
77	N N		N N
78	CI		N N
79	F		N N

		NI.	NI NI
80			N N
81	F₃CO Ci		N+·O
82	CF <sub>3</sub> N		N+.O*
83	F <sub>3</sub> C N		N+.O
84		× ×	N+.O-
85	Br		N+·O
86			N
87	Br		N N
88	Br	N	N N
89	Br	N N	N N

90		N	N N
91	MeO CI		N N
92	CI		N N
93	У-Y-		N N
94	OMe		N N
95	Br CF <sub>3</sub>		N N
96	CH <sub>3</sub>		N N
97	Br	z	N N
98	Br		N N
99	EtO		N
100	Et		N N
101	F Y		N N N

102	↑ Ti		N
	MeO		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
103	Br	0	N
104	F		N N
105	PhO		N N
106			N N
107			N
108	N N		N
109	N N		N
110	Z=		N
111	CI	CH₃	N N
112	O=S=O		N N
L		L	



3. A compound according to claim 2 wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> each represent:

16	CF <sub>3</sub> N	N <sup>+</sup> ·O <sup>-</sup>
17	Br	N N
28	Br CH <sub>3</sub>	N N N
29	MeO CI	NNN
31	T'i	N N
36	F \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	N N
37	MeO	N N
39	CH <sub>3</sub>	N N
40	EtO	N N
47	MeSO <sub>2</sub> ·NH	N N
49	Ac. N	N N N

50	MeSO <sub>2</sub>		N N
56	S N		N
57	CF <sub>3</sub> CH <sub>2</sub> SN ON H		N N
61	H <sub>2</sub> N		N N
68	O NH		N N
69	CF <sub>3</sub> N		N N
70	F <sub>3</sub> CO		N N
71	Br N		N N
80		N	N N
81	F <sub>3</sub> CO		N+·O
82	CF <sub>3</sub> N		N+·O

90		N N	N N
91	MeO CI		N N
93	F.		N N
96	r'i de la companya d		N N
99	EtO		N N
100	Et		N N
101	F Tri		N
102	MeO		N N

## 4. A compound according to claim 3 represented by the structural formulae:

$$\begin{array}{c|c} & & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

5. A pharmaceutical composition comprising one or more compounds of claim 1.

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- A pharmaceutical composition comprising one or more compounds of claim 4
- 7. The pharmaceutical composition according to claim 5 further comprising one or more pharmaceutically acceptable carriers.
  - 8. The pharmaceutical composition according to claim 6 further comprising one or more pharmaceutically acceptable carriers.
- 10 9. The pharmaceutical composition according to claim 5, wherein said pharmaceutical composition contains a therapeutically acceptable amount of said one or more compounds.
- 10. The pharmaceutical composition according to claim 6, wherein said pharmaceutical composition contains a therapeutically acceptable amount of said one or more compounds.
  - 11. A method of treating Human Immunodeficiency Virus comprising administering to a patient in need of such treatment a therapeutically effective amount of one or more compounds according to claim 1.
    - 12. A method of treating Human Immunodeficiency Virus comprising administering to a patient in need of such treatment a therapeutically effective amount of one or more compounds according to claim 4.
    - 13 The method of claim 12 further comprising administering said one or more compounds in combination with one or more pharmaceutically acceptable carriers.
- 30 14. The method of claim 12 further comprising administering one or more antiviral or other agents useful in the treatment of Human Immunodeficiency Virus.

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15. The method of claim 14 wherein said antiviral agent is selected from the group consisting of nucleoside reverse transcriptase inhibitors, non-nucleoside reverse transcriptase inhibitors and protease inhibitors.

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- 16. The method of claim 14 wherein said antiviral agent is selected from the group consisting of zidovudine, lamivudine, zalcitabine, didanosine, stavudine, abacavir, adefovir dipivoxil, lobucavir, BCH-10652, emitricitabine, beta-L-FD4, DAPD, lodenosine, nevirapine, delaviridine, efavirenz, PNU-142721, AG-1549, MKC-442, (+)-calanolide A and B, saquinavir, indinavir, ritonavir, nelfinavir, lasinavir, DMP-450, BMS-2322623, ABT-378, amprenavir, hydroxyurea, ribavirin, IL-2, IL-12, pentafuside, Yissum No. 11607 and AG-1549.
- 17. A method of treating solid organ transplant rejection, graft v. host disease, arthritis, rheumatoid arthritis, inflammatory bowel disease, atopic dermatitis, psoriasis, asthma, allergies or multiple sclerosis comprising administering to a patient in need of such treatment a therapeutically effective amount of one or more compounds of claim 1

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18. The method of claim 17 for treating solid organ transplant rejection, graft v. host disease, rheumatoid arthritis, inflammatory bowel disease or multiple sclerosis further comprising administering said one or more compounds in combination with one or more pharmaceutically acceptable carriers.

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19. The method of claim 17 for treating solid organ transplant rejection, graft v. host disease, rheumatoid arthritis, inflammatory bowel disease or multiple sclerosis further comprising administering one or more other agents useful in the treatment of said diseases.

20. A kit comprising in separate containers in a single package pharmaceutical compositions for use in combination to treat Human Immunodeficiency Virus which comprises in one container a pharmaceutical composition comprising one or more compounds of claim 1 in one or more pharmaceutically acceptable carriers, and in separate container, one or more pharmaceutical compositions comprising one or more antiviral or other agents useful in the treatment of Human Immunodeficiency Virus in one or more pharmaceutically acceptable carriers.